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PATENT

Atty. Docket No. 36691-2

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[Signature]
Jeff Beno

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:

STEPHANIE WAI MAN SHIU

Application No.: 10/029,482

Filed: December 20, 2001

For: ELECTRONICALLY CONTROLLED
MULTI-LIGHT FLASHLIGHT

Group Art Unit: 2875

Examiner: Tsidulko, Mark

**TRANSMITTAL OF APPEAL BRIEF
(PATENT APPLICATION - 37 C.F.R. § 1.192)**

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Transmitted herewith, in triplicate, is the Appeal Brief in the above-referenced patent application, with respect to the Notice of Appeal filed on August 10, 2004.

This Appeal Brief is being submitted on behalf of Assignee, Gold Coral International Limited.

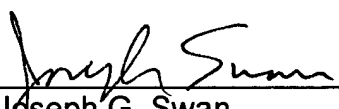
Pursuant to 37 C.F.R. § 1.17(f) enclosed please find a check in the amount of \$170.00 to cover the small-entity filing fee for the Appeal Brief. Small-entity status is claimed.

If there are any fees due in connection with the filing of this paper that have not been accounted for in this paper or the accompanying papers, please charge the fees to our Deposit Account No. 13-3735. If an extension of time under 37 C.F.R. 1.136 is required for the filing of this paper and is not accounted for in this paper or the accompanying papers, such an extension is requested and the fee (or any underpayment thereof) should also be charged to our Deposit Account. A duplicate copy of this page is enclosed for that purpose.

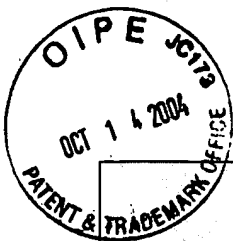
Respectfully submitted,

MITCHELL, SILBERBERG & KNUPP LLP

Dated: October 8, 2004

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**APPELLANT'S BRIEF
ON APPEAL TO THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Mail Stop Appeal Brief - Patent
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

Appellant in the above-captioned patent application appeals the final rejection of claims 1-3, 7-9, 11, 12, 14-26 and 30-34, as set forth in the Office Action mailed June 24, 2004 (the "Final Office Action"), a timely Notice of Appeal having been filed on August 10, 2004.

I. REAL PARTY IN INTEREST

The real party in interest in this application is Gold Coral International Limited, pursuant to an assignment recorded on December 20, 2001, at reel 012419, frame 0898.

II. RELATED APPEALS AND INTERFERENCES

Appellant is not aware of any related appeals or interferences.

III. STATUS OF CLAIMS

Claims 1-3, 7-9, 11, 12, 14-26 and 30-34 have been finally rejected and are the subject matter of this appeal. In accordance with 37 C.F.R. § 1.192(c)(9), a copy of the claims involved in this appeal is included in Appendix A attached hereto.

IV. STATUS OF THE AMENDMENTS

No amendment has been filed subsequent to the final rejection.

V. SUMMARY OF THE INVENTION

The present invention concerns an improved flashlight that retains many of the advantages of a conventional mechanical flashlight. However, a flashlight according to the present invention also utilizes an integrated circuit and/or a multi-state device in order to provide additional flexibility and functionality that is not found in such a conventional mechanical flashlight.

One example is described in the Specification, e.g., from page 3 line 17 to page 7 line 26. As described, this exemplary flashlight includes a single incandescent light

bulb and three LEDs. A single pushbutton switch is provided, permitting the user to cycle through different states in which different combinations of such multiple light sources are illuminated by simply repeatedly pressing the pushbutton switch. The initial state is the "off" state, in which none of the light sources is illuminated, and after a predetermined number of depressions of the pushbutton switch (corresponding to a predetermined sequence of states) the flashlight again returns to the "off" state.

In the embodiment described in the Specification, the flashlight cycles through the following four states: "off", only the middle LED on, only the three LEDs on, only the incandescent light bulb on, and then back to the "off" state. See, e.g., page 6 lines 14-22. However, other sequences and/or combinations instead may be used. See, e.g., page 6 line 28-33. In addition, by modifying the nature of the light sources, such a technique may be utilized to control various aspects of the flashlight's overall light output. See, e.g., page 6 lines 23-27.

VI. ISSUES PRESENTED ON APPEAL

The issues are: (i) whether claims 11, 12, 17 and 25 are properly rejected under 35 USC § 102(b) over U.S. Patent 6,305,818 (Lebens); (ii) whether claims 1, 7, 18-21, 22, 24, 26, 30, 31 and 34 are properly rejected under § 103(a) over Lebens; (iii) whether claims 2, 3, 14 and 15 are properly rejected under § 103(a) over Lebens in view of U.S. Patent 6,012,824 (Sharrah); (iv) whether claims 8, 9, 16 and 23 are properly rejected under § 103(a) over Lebens in view of U.S. Patent 6,394,622 (Macek); and (v) whether claims 32 and 33 are properly rejected under § 103(a) over Lebens in view of U.S. Patent 5,347,261 (Adell). As to clause (i) above, it is assumed that claims 11, 12, 17

and 25 stand rejected under § 102(e), as Lebens issued less than one year prior to the filing date of the current application.

VII. GROUPING OF THE CLAIMS

In the Office Action, the Examiner grouped the pending claims in a particular manner. However, for purposes of the present appeal, Appellants believe that the claims are more appropriately grouped as follows:

GROUP 1: Claims 1, 2, 8, 9, 21 and 23

GROUP 2: Claims 11, 14, 16, 17 and 25

GROUP 3: Claims 3 and 15

GROUP 4: Claim 7

GROUP 5: Claim 12

GROUP 6: Claim 18

GROUP 7: Claim 19

GROUP 8: Claim 20

GROUP 9: Claims 22 and 26

GROUP 10: Claim 24

GROUP 11: Claim 30

GROUP 12: Claim 31

GROUP 13: Claim 32

GROUP 14: Claim 33

GROUP 15: Claim 34

It is therefore Appellant's intent that, solely for purposes of the present Appeal and for refuting the specific arguments set forth by the Examiner, the claims in each of the foregoing groups will stand or fall together, subject to the following. In certain

cases, identical or similar claims may be grouped together, even though they have different dependencies, in order to avoid redundant arguments and thereby minimize the length of this Brief. In such cases, whenever any claim in one group depends (whether directly or indirectly) from a claim that ultimately is determined to be allowable, such dependent claim also should be allowed for at least the same reasons.

VIII. ARGUMENT

Discussion Of Issues On Appeal

Anticipation Rejection Under 35 USC § 102

The requirements for showing anticipation under § 102 are described in M.P.E.P. § 2131 as follows:

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

With respect to a § 102 rejection, the Federal Circuit also has held that "The identical invention must be shown in as complete detail as is contained in the . . . claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920, (Fed. Cir. 1989).

In addition, when inherency is asserted extrinsic evidence must be cited to show that the missing descriptive matter is necessarily present in the thing described in the reference:

To establish inherency, the *extrinsic evidence* [emphasis added] "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." Continental Can Co. v. Monsanto Co., 948 F.2d

1264, 1268, 20 U.S.P.Q.2d 1746, 1749 (Fed. Cir. 1991). "Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *Id.* at 1269, 20 U.S.P.Q.2d at 1749 (quoting In re Oelrich, 666 F.2d 578, 581, 212 U.S.P.Q. 323, 326 (C.C.P.A. 1981)).

In re Robertson, (Fed. Cir. 1999) 169 F.3d 743, 745; 49 U.S.P.Q.2d 1949.

Obviousness Rejection Under 35 USC § 103

The requirements for establishing a prima facie case of a § 103 rejection have been stated as follows.

"a proper analysis under § 103 requires, inter alia, consideration of two factors: (1) whether the prior art would have suggested to those of ordinary skill in the art that they should make the claimed composition or device, or carry out the claimed process; and (2) whether the prior art would also have revealed that in so making or carrying out, those of ordinary skill would have a reasonable expectation of success. [citing In re Dow Chemical Co., 837 F.2d 469, 473, 5 U.S.P.Q.2D 1529, 1531 (Fed. Cir. 1988).] Both the suggestion and the reasonable expectation of success must be found in the prior art, not in the applicant's disclosure."

In re Vaeck, 947 F.2d 488, 493 (Fed. Cir. 1991).

Thus, MPEP § 2142 requires that in order to establish a prima facie case of obviousness, the Examiner must cite prior art references that teach or suggest all of the claim limitations and, if more than one such reference is required to disclose all such limitations, there must be some suggestion or motivation, either in the prior art references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the reference teachings.

As to motivation to combine, MPEP § 2143.01 provides:

A statement that modifications of the prior art to meet the claimed invention would have been "well within the ordinary skill of the art at the time the claimed invention was made" because the references relied upon teach that all aspects of the claimed invention were individually known in

the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. Ex parte Levengood, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). See also In re Kotzab, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1318 (Fed. Cir. 2000) (Court reversed obviousness rejection involving technologically simple concept because there was no finding as to the principle or specific understanding within the knowledge of a skilled artisan that would have motivated the skilled artisan to make the claimed invention); Al-Site Corp. v. VSI Int'l Inc., 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999) (The level of skill in the art cannot be relied upon to provide the suggestion to combine references.).

Group 1 Claims

Independent claim 1 is directed to a flashlight that includes a plurality of light sources, each providing light when energized. A provided housing is configured so as to direct that light into a beam. A pushbutton switch, operable by a user, is electrically coupled to an integrated circuit, which in turn is configured to control which of the plurality of light sources is/are illuminated based on input signals from the pushbutton switch. More specifically, the integrated circuit is a multi-state electronic device that changes state when a signal is input from the switch, with different states of the integrated circuit causing different combinations of the light sources to become illuminated. The integrated circuit cycles through a fixed number of states, one state each time the pushbutton switch is depressed, beginning at an initial state in which all of the light sources are off and then, after cycling through the fixed number of states, returning to the initial state, whereupon the cycle may be repeated.

The foregoing combination of features is not disclosed or suggested by Lebens. For instance, Lebens has been studied in detail and is not seen to disclose or to suggest at least the feature of: *a flashlight that includes an integrated circuit that cycles*

through a fixed number of states in which different combinations of the light sources are illuminated, one state each time a pushbutton switch is depressed, beginning at an initial state in which all of the light sources are off and then, after cycling through the fixed number of states, returning to the initial state, whereupon the cycle may be repeated.

In the Final Office Action, the Examiner has cited the Abstract and column 8 lines 45-55 of Lebens as showing this feature of the invention. However, those portions of Lebens have been studied in detail and are not seen to say anything at all about such a feature. Rather, Lebens's Abstract merely discusses the use of a control circuit for maintaining or controlling a light output level, color spectrum or other characteristic, e.g., as the charge on a battery varies. Column 8 lines 45-55 of Lebens merely discusses the use of a microprocessor that is programmed to receive a feedback signal and to adjust certain drive signals for controlling a light output level, thereby attempting to achieve the foregoing goal.

Because Lebens lacks any disclosure or suggestion of the above-referenced feature of the invention, independent claim 1 could not have been obvious in view of it, as asserted by the Examiner. See, e.g., MPEP § 2142 above which requires, for a valid § 103 rejection, that the prior art references disclose or suggest all of the recited limitations.

In addition, the Examiner simply asserts, without any supporting prior art reference, that it would have been obvious to use a pushbutton switch for cycling through the different illumination-pattern states, as recited in independent claim 1. However, such a conclusory statement is believed to be inappropriate under MPEP

§ 2143.01, *supra*. Therefore, no valid argument can be made that Lebens would have disclosed or suggested the use of a pushbutton switch, as recited in claim 1.

Accordingly, independent claim 1, together with its dependent claims 14, 16, 17 and 25, is believed to be allowable over the applied art.

Group 2 Claims

Independent claim 11 is directed to a flashlight that includes a hand-sized flashlight body, plural light sources disposed within the flashlight body, and a switch disposed on the flashlight body. The flashlight body is configured to direct light from the plural light sources. Also provided is a multi-state electronic device that has plural states and is electrically coupled to the switch and to the plural light sources. Each activation of the switch causes the multi-state electronic device to advance to a next one of the plural states, with the multi-state electronic device only changing state when a signal is input from the switch, and with each of the plural states causing a different combination of the light sources to illuminate.

The foregoing combination of features also is not disclosed or suggested by the applied art. For instance, the applied art does not disclose or suggest at least the feature of: *a flashlight that includes a multi-state electronic device for advancing through plural states in which different combinations of light sources are illuminated, where the state only changes when a signal is input from a provided switch.*

In this regard, the only applied reference cited by the Examiner in rejecting independent claim 11 is Lebens. More specifically, the Examiner has asserted that: the recited light sources read on Lebens's LEDs 150 and the recited switch reads on

Lebens's feature switches 140. It is not clear which of Lebens's circuit elements the Examiner is asserting that the recited multi-state electronic device reads on.

In any event, it appears that the primary purpose of Lebens is to provide an illumination device that can maintain a constant color output, or that can maintain some other characteristic of the output light at a constant value, while the voltage of the power source varies. See, e.g., Lebens's Abstract.

In order to achieve this goal, Lebens uses a feedback path to modify the illumination pattern when conditions change (typically caused by a change in the battery voltage). See, e.g., Lebens's Figure 1. The existence of Lebens's feedback path means that the state of any multi-state electronic device that may be used by Lebens can be expected to change frequently, even when a signal is not input from a provided switch. This is clearly contrary to the above-referenced limitation of claim 11.

Moreover, there is absolutely no indication that Lebens's feature switches 140 ever change the state of any multi-state device in Lebens's flashlight, much less that *"each activation of [switches 140] causes [any] multi-state electronic device to advance to a next state, [causing] a different combination of light sources to illuminate"*, as recited in independent claim 11. Rather, Lebens simply says that the purpose of such switches 140 is to allow the user to control various flashlight functions, such as on/off, light level, light color, pulse or stroke frequency, etc. See, e.g., column 7 lines 54-57.

In the Final Office Action, the Examiner acknowledges that this is in fact the function of switches 140. However, the Examiner then goes on to state, "It is understood that different light levels cause different patterns of the light sources to illuminate and to remain illuminated until a next state transition based on an activation of

the switch.” Appellant does not see anything in Lebens to support such a statement, and the Examiner has not cited anything in Lebens in support of it.

To the contrary, the portions of Lebens referenced above clearly show that state changes, if any in Lebens, will occur automatically as a result of information provided by Lebens’s feedback loop. Thus, it clearly is not the case that any multi-state device in Lebens “only changes state when a signal is input from” switches 140.

Lacking the foregoing features of the invention, Lebens could not possibly have anticipated independent claim 11, as asserted by the Examiner. Such features are neither expressly disclosed nor necessarily present in Lebens, as would be required in connection with an anticipation rejection. See the requirements for a § 102 rejections set forth above.

Generally speaking, the flashlight (or other light source) provided by Lebens addresses a specific problem that otherwise may occur when one is utilizing a variety of different LEDs for providing light, i.e., that the characteristics of the output light may change as the battery becomes discharged. However, the circuitry utilized by Lebens to address this problem is relatively complicated, meaning that a flashlight (or other light source) according to Lebens is likely to be fairly expensive.

On the other hand, the present invention typically can employ a very simple multi-state electronic device to accomplish its intended purpose. As a result, a flashlight according to claim 11 often can be constructed so that it is not significantly more expensive than a comparable conventional mechanical flashlight. For example, as described at page 5 lines 4-18 in the Specification, a simple counter circuit can be utilized to change the pattern of light sources that are illuminated at any given time.

Nevertheless, a flashlight according to claim 11 often can provide much more flexibility than a conventional mechanical flashlight in providing a number of different illumination patterns. In short, a flashlight according to claim 11 is addressed to a significantly different need than the flashlight of Lebens.

Accordingly, independent claim 11, together with its dependent claims 14, 16, 17 and 25, is believed to be allowable over the applied art.

Group 3 Claims

Claim 3 depends from independent claim 1 (in Group 1) and claim 15 depends from independent claim 11 (in Group 2). Each recites the further limitation that the plurality of light sources includes a light-emitting diode (LED) and an incandescent lamp. This additional feature of the invention is not disclosed or suggested by the applied art.

In the Final Office Action, the Examiner acknowledges that Lebens fails to disclose or to suggest such a feature, but notes that Sharrah discloses a flashlight having both a LED and an incandescent lamp. Then, the Examiner asserts that it would have been obvious to incorporate Sharrah's combination of an incandescent bulb and a LED into Lebens's flashlight "in order to obtain different levels of power consumption".

However, nothing in Lebens appears to suggest the desirability of having light sources with different levels of power consumption. Also, the Examiner does not indicate why, if Lebens did in fact suggest the desirability of such a feature, Lebens would not have expressly suggested incorporation of an incandescent lamp into his flashlight. Lebens clearly was aware of the use of incandescent lamps in flashlights and even mentioned such use in his Background section. See column 1 lines 18-21.

Apparently, the reason that Lebens did not make any such suggestion was because Lebens was solely concerned with the problems associated with the use of LEDs. See, e.g., column 1 lines 33-35 of Lebens. Moreover, due to the much greater electrical current requirements of incandescent lamps, it is likely that the incorporation of any such lamp into Lebens's flashlight would have required a modification of his circuitry.

For these additional reasons, claims 3 and 15 are believed to be allowable over the applied art.

Group 4 Claim

Claim 7 depends from independent claim 1 (in Group 1) and recites the further limitation that the integrated circuit is a counter. This additional feature of the invention is not disclosed or suggested by the applied art.

In fact, the Examiner has not even alleged that the applied art discloses or suggests this feature of the invention. Rather, with respect to this claim limitation, the Examiner merely asserts that Lebens's integrated circuit "includes a timer used to provide different states of illumination." Even if this statement is correct, and Appellant has not evaluated whether or not it is, a counter is significantly different than a timer. The mere disclosure of a timer would not have disclosed or suggested the use of a counter, as presently recited.

For these additional reasons, claim 7 is believed to be allowable over the applied art.

Group 5 Claim

Claim 12 depends from independent claim 11 (in Group 2) and recites the further limitation that the multi-state electronic device is a counter having an output corresponding to each state. This additional feature of the invention is not disclosed or suggested by the applied art.

In fact, the Examiner has not even alleged that the applied art discloses or suggests this feature of the invention. Rather, with respect to this claim limitation, the Examiner merely asserts that Lebens's integrated circuit "includes a timer used to provide different states of illumination." Even if this statement is correct, and Appellant has not evaluated whether or not it is, a counter is significantly different than a timer. The mere disclosure of a timer would not have disclosed or suggested the use of a counter, as presently recited.

For these additional reasons, claim 12 is believed to be allowable over the applied art.

Group 6 Claim

Claim 18 depends from independent claim 11 (in Group 2) and recites the further limitation that the switch is a pushbutton. This additional feature of the invention is not disclosed or suggested by the applied art.

With regard to this feature, the Examiner simply asserts, without any supporting prior art reference, that a pushbutton "*may* be used for the device". However, there is no indication that Lebens suggested using a pushbutton for advancing through the different illumination-pattern states, as recited in the present claim. Therefore, the Examiner's conclusory statement is believed to be inappropriate under MPEP

§ 2143.01, *supra*, and no valid argument can be made that Lebens would have disclosed or suggested the use of a pushbutton, as recited in the present claim.

For these additional reasons, claim 18 is believed to be allowable over the applied art.

Group 7 Claim

Claim 19 depends from independent claim 11 (in Group 2) and recites the further limitation that the switch is a three-position rocker switch, depressing the switch in a first direction advances to a next state of the multi-state device, and depressing the switch in a second direction returns to a previous state of the multi-state device. This additional feature of the invention is not disclosed or suggested by the applied art.

The Examiner cites column 7 lines 54-57 of Lebens as showing this feature of the invention. However, that portion of Lebens instead merely states that switch circuit 140 allows the user to control various flashlight functions. It says nothing at all about a 3-position rocker switch, much less the above-referenced functionality of such a switch.

For these additional reasons, claim 19 is believed to be allowable over the applied art.

Group 8 Claim

Claim 20 depends from claim 19 (in Group 7) and recites the further limitation that depressing the switch in the first direction causes a characteristic of a resulting light beam to change in one direction and depressing the switch in the second direction causes the characteristic of the resulting light beam to change in an opposite direction. This additional feature of the invention is not disclosed or suggested by the applied art.

The Examiner cites column 7 lines 54-57 of Lebens as showing this feature of the invention. However, that portion of Lebens instead merely states that switch circuit 140 allows the user to control various flashlight functions. It says nothing at all about a 3-position rocker switch, much less that that depressing such a switch in a first direction causes a characteristic of a resulting light beam to change in one direction and depressing the switch in a second direction causes the characteristic of the resulting light beam to change in the opposite direction.

For these additional reasons, claim 20 is believed to be allowable over the applied art.

Group 9 Claims

Claim 22 depends from independent claim 1 (in Group 1) and claim 26 depends from independent claim 11 (in Group 2). Each recites the further limitation that each activation of the switch causes a change in which of the plurality of light sources, if any, are illuminated, and the new set of illuminated light source(s), if any, remain illuminated until a next activation of the switch. This additional feature of the invention is not disclosed or suggested by the applied art.

The Examiner cites columns 7 lines 19-23 and 54-57 of Lebens as showing this feature of the invention. However, lines 19-23 merely discusses the use of a thumbwheel or rotary switch to vary the light characteristics, and lines 54-57 merely state that switch circuit 140 allows the user to control various flashlight functions.

Neither such portion of Lebens indicates that each activation of the switch causes a change in which of the plurality of light sources, if any, are illuminated. In fact, other portions of Lebens indicate that user-requested changes in the light output

characteristics may be accommodated, not by changing which of the various light sources are illuminated, but rather by changing how much drive current is supplied to the individual light sources that already are illuminated. See, e.g., column 3 lines 38-43; column 4 lines 47-52; and column 5 lines 46-66.

Moreover, neither such cited portion of Lebens indicates that the new set of illuminated light source(s), if any, remain illuminated until a next activation of the switch. To the contrary, the remainder of Lebens's disclosure expressly contemplates that drive current and the specific light sources that are illuminated will change based on other factors, such as battery voltage.

In order to achieve this goal, Lebens uses a feedback path to modify the illumination pattern when conditions change (typically caused by a change in the battery voltage). See, e.g., Lebens's Figure 1. The existence of Lebens's feedback path means that the state of any multi-state electronic device that may be used by Lebens can be expected to change frequently, even when a signal is not input from a provided switch. This is clearly contrary to the above-referenced limitation of the present claim.

For these additional reasons, claims 22 and 26 are believed to be allowable over the applied art.

Group 10 Claim

Claim 24 depends from independent claim 1 (in Group 1) and recites the further limitation that the integrated circuit only changes state when a signal is input from the switch. This additional feature of the invention is not disclosed or suggested by the applied art.

With regard to this feature, the Examiner merely noticed that Lebens discloses a flashlight having a multiple-position the switch and then asserts, "It is understood that repeating of switch activation causes the multi-state device to cycle through the plural states since each state of the switch causes corresponding state of cycle." However, such comments are irrelevant to the present claim limitation, which recites that the integrated circuit *only* changes state when a signal is input from the switch. As noted above, Lebens's disclosure expressly contemplates that drive current and the specific light sources that are illuminated will change based on other factors, such as battery voltage.

In order to achieve this goal, Lebens uses a feedback path to modify the illumination pattern when conditions change (typically caused by a change in the battery voltage). See, e.g., Lebens's Figure 1. The existence of Lebens's feedback path means that the state of any multi-state electronic device that may be used by Lebens can be expected to change frequently, even when a signal is not input from a provided switch. This is clearly contrary to the above-referenced limitation of the present claim.

For these additional reasons, claim 24 is believed to be allowable over the applied art.

Group 11 Claim

Claim 30 depends from independent claim 11 (in Group 2) and recites the further limitation that the multi-state electronic device cycles through at least three different states in response to identical activations of the switch. This additional feature of the invention is not disclosed or suggested by the applied art.

The Examiner appears to conclude that the foregoing feature of the invention is obvious based on the mere observation that “any type of switch has a fixed number of states.” However, the limitation of the present claim pertains to how the multi-state device changes state (each state corresponding to a different combination of illuminated light sources) in response to identical activations of a switch, rather than how many states the switch itself has. In one embodiment described in the Specification, the switch is a pushbutton switch, and each depression of the pushbutton causes the multi-state device to advance to the next state in the cycle, with a total of four states (including the “off” state) in the cycle. The feature of cycling through at least three different states (each state corresponding to a different combination of illuminated light sources) in response to identical activations of the switch clearly would not have been obvious in view of the mere known availability of multi-state switches.

For these additional reasons, claim 30 is believed to be allowable over the applied art.

Group 12 Claim

Claim 31 depends from independent claim 11 (in Group 2) and recites the further limitation that for each transition from a previous state to a new state, based on an activation of the switch, the multi-state electronic device causes a different pattern of light sources to illuminate and to remain illuminated until a next state transition based on an activation of the switch. This additional feature of the invention is not disclosed or suggested by the applied art.

In the Final Office Action, the Examiner states, “Lebens et al. disclose a flashlight having a multiple positions which [citation omitted] which allows to control various light

levels, colors, etc.” The Examiner then concludes, “It is understood that different light levels cause different patterns of the light sources to illuminate and to remain illuminated until a next state transition based on an activation of the switch.” Appellant does not see anything in Lebens to support such a statement, and the Examiner has not cited anything in Lebens in support of it.

To the contrary, it appears that the primary purpose of Lebens is to provide an illumination device that can maintain a constant color output, or that can maintain some other characteristic of the output light at a constant value, while the voltage of the power source varies. See, e.g., Lebens’s Abstract.

In order to achieve this goal, Lebens uses a feedback path to modify the illumination pattern when conditions change (typically caused by a change in the battery voltage). See, e.g., Lebens’s Figure 1. The existence of Lebens’s feedback path means that the state of any multi-state electronic device that may be used by Lebens can be expected to change frequently, even when a signal is not input from a provided switch. This is clearly contrary to the above-referenced limitation of the present claim.

The portions of Lebens referenced above clearly show that state changes, if any in Lebens, will occur automatically as a result of information provided by Lebens’s feedback loop. Thus, it clearly is not the case that in Lebens the “light sources illuminate and remain illuminated until a next state transition based on an activation of the switch”.

For these additional reasons, claim 31 is believed to be allowable over the applied art.

Group 13 Claim

Claim 32 depends from independent claim 11 (in Group 2) and recites the further limitation that the switch is spring-loaded and a depression and release of the switch causes only a single state change in the multi-state electronic device. This additional feature of the invention is not disclosed or suggested by the applied art.

As to this limitation, the Examiner simply states, "It would have been obvious to one having ordinary skill in the art, at the time the invention was made, to provide the spring-loaded switch, as taught by Adell for the device of Lebens et al. in order to obtain a single state change in the multi-state device."

In this regard, Adell discloses the use of a spring-loaded switch for use in controlling front and rear vehicle signal lights. There simply is nothing in either Adell or Lebens that would suggest the use of such a switch in Lebens's flashlight. Accordingly, the above-referenced conclusory statement by the Examiner is believed to be inappropriate under MPEP § 2143.01, *supra*.

In fact, nothing in Lebens even remotely indicates that obtaining a single state change in a multi-state device is a problem that needs to be solved in connection with Lebens's device. Therefore, one of ordinary skill in the art would not have looked to a reference in an entirely different field, such as Adell, in order to identify techniques for addressing such a supposed problem. For similar reasons, Adell is believed to be non-analogous art to flashlight design, under the requirements of MPEP § 2141.01(a).

For these additional reasons, claim 32 is believed to be allowable over the applied art.

Group 14 Claim

Claim 33 depends from independent claim 11 (in Group 2) and recites the further limitation that the switch is a temporary-activation switch and only a single transition edge of the signal provided by the switch causes a state change in the multi-state electronic device. This additional feature of the invention is not disclosed or suggested by the applied art.

As to this limitation, the Examiner simply states, "It would have been obvious to one having ordinary skill in the art, at the time the invention was made, to provide the spring-loaded switch, as taught by Adell for the device of Lebens et al. in order to obtain a single state change in the multi-state device."

Even assuming that Adell discloses the use of a temporary-activation switch, nothing in Adell appears to indicate that only a single transition edge of the signal provided by the switch causes a state change in the multi-state electronic device, and the Examiner has not been alleged that it does. Accordingly, nothing in the applied art would have disclosed or suggested the above-referenced feature of the invention.

Still further, Adell discloses the use of a spring-loaded switch for use in controlling front and rear vehicle signal lights. There is nothing in either Adell or Lebens that would suggest the use of such a switch in Lebens's flashlight. Accordingly, the above-referenced conclusory statement by the Examiner is believed to be inappropriate under MPEP § 2143.01, *supra*.

In fact, nothing in Lebens even remotely indicates that obtaining a single state change in a multi-state device is a problem that needs to be solved in connection with Lebens's device. Therefore, one of ordinary skill in the art would not have looked to a reference in an entirely different field, such as Adell, in order to identify techniques for

addressing such a supposed problem. For similar reasons, Adell is believed to be non-analogous art to flashlight design, under the requirements of MPEP § 2141.01(a).

For these additional reasons, claim 33 is believed to be allowable over the applied art.

Group 15 Claim

Claim 34 depends from independent claim 11 (in Group 2) and recites the further limitation that the plural states begin at an initial state in which all of the light sources are off and then, after cycling through the fixed number of states, return to the initial state, whereupon the cycle may be repeated. This additional feature of the invention is not disclosed or suggested by the applied art.

The Examiner appears to conclude that the foregoing feature of the invention is obvious based on the mere observation that “any type of switch has a fixed number of states.” However, the limitation of the present claim pertains to how the multi-state device changes state (each state corresponding to a different combination of illuminated light sources) in response to identical activations of a switch, rather than how many states the switch itself has. In one embodiment described in the Specification, the switch is a pushbutton switch, and each depression of the pushbutton causes the multi-state device to advance to the next state in the cycle, with a total of four states (including the “off” state) in the cycle. The feature of beginning at an initial state in which all of the light sources are off and then, after cycling through the fixed number of states, returning to the initial state, whereupon the cycle may be repeated, clearly would not have been obvious in view of the mere known availability of multi-state switches.

For these additional reasons, claim 34 is believed to be allowable over the applied art.

IX. CONCLUDING REMARKS

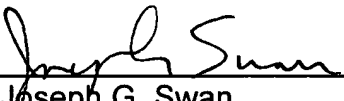
As Appellant has shown above, for a number of reasons, nothing in the cited references discloses, teaches, or suggests the invention recited by the claims on appeal. Appellant therefore respectfully submits that the claimed invention is patentably distinct over the applied art.

In view of the foregoing remarks, Appellant respectfully requests that the rejection of claims 1-3, 7-9, 11, 12, 14-26 and 30-34 be reversed and a Notice of Allowance issued.

Respectfully submitted,

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Dated: October 8, 2004

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APPENDIX A

Claims on Appeal

1. A flashlight, comprising:
 - a plurality of light sources, each providing light when energized;
 - a housing configured so as to direct the light into a beam;
 - an integrated circuit configured to control which of the plurality of light sources is/are illuminated; and
 - a pushbutton switch operable by a user and electrically coupled to the integrated circuit,
 - wherein the integrated circuit controls illumination of the light sources based on input signals from the pushbutton switch,
 - wherein the integrated circuit is a multi-state electronic device that changes state when a signal is input from the switch, and wherein different states of the integrated circuit cause different combinations of the light sources to become illuminated,
 - wherein the integrated circuit cycles through a fixed number of states, one state each time the pushbutton switch is depressed, and
 - wherein the states begin at an initial state in which all of the light sources are off and then, after cycling through the fixed number of states, return to said initial state, whereupon the cycle may be repeated.
2. A flashlight according to claim 1, wherein the light sources have different levels of power consumption.

3. A flashlight according to claim 1, wherein the plurality of light sources includes at least one light-emitting diode (LED) and at least one incandescent lamp.
4. (Canceled)
5. (Canceled)
6. (Canceled)
7. A flashlight according to claim 1, wherein the integrated circuit is a counter.
8. A flashlight according to claim 1, wherein at least one of the light sources is covered by a type of lens that does not cover at least one other of the light sources.
9. A flashlight according to claim 1, wherein the light sources include plural light-emitting diodes (LEDs) and an incandescent bulb, and wherein a lens covers all of the LEDs only.
10. (Canceled)
11. A flashlight, comprising:

a flashlight body that is hand-sized;
plural light sources disposed within the flashlight body;
a switch disposed on the flashlight body; and
a multi-state electronic device that has plural states and is electrically coupled to the switch and to the plural light sources,
wherein the flashlight body is configured to direct light from the plural light sources,
wherein each activation of the switch causes the multi-state electronic device to advance to a next one of the plural states,
wherein the multi-state electronic device only changes state when a signal is input from the switch, and
wherein each of the plural states causes a different combination of the light sources to illuminate.

12. A flashlight according to claim 11, wherein the multi-state electronic device is a counter having an output corresponding to each state.

13. (Canceled)

14. A flashlight according to claim 11, wherein at least some of the light sources have different brightnesses.

15. A flashlight according to claim 11, wherein the light sources comprise an incandescent lamp and a light-emitting diode.

16. A flashlight according to claim 11, wherein at least one of the light sources is covered by a type of lens that does not cover at least one other of the light sources.

17. A flashlight according to claim 11, wherein the flashlight body is configured to direct light from the plural light sources in a single direction.

18. A flashlight according to claim 11, wherein the switch is a pushbutton.

19. A flashlight according to claim 11, wherein the switch is a three-position rocker switch, depressing the switch in a first direction advances to a next state of the multi-state device, and depressing the switch in a second direction returns to a previous state of the multi-state device.

20. A flashlight according to claim 19, wherein depressing the switch in the first direction causes a characteristic of a resulting light beam to change in one direction and depressing the switch in the second direction causes the characteristic of the resulting light beam to change in an opposite direction.

21. A flashlight according to claim 1, wherein the flashlight is hand-sized and battery-powered.

22. A flashlight according to claim 1, wherein each time the switch is activated the integrated circuit causes a change in which of the plurality of light sources, if any, are illuminated, and the new set of illuminated light source(s), if any, remain illuminated until a next activation of the switch.

23. A flashlight according to claim 1, wherein each activation of the switch changes a characteristic of the light beam.

24. A flashlight according to claim 1, wherein the integrated circuit only changes state when a signal is input from the switch.

25. A flashlight according to claim 11, wherein the flashlight is battery-powered.

26. A flashlight according to claim 11, wherein each time the switch is activated the multi-state electronic device causes a change in which of the plurality of light sources, if any, are illuminated, and the new set of illuminated light source(s), if any, remain illuminated until a next activation of the switch.

27. (Canceled)

28. (Canceled)

29. (Canceled)

30. A flashlight according to claim 11, wherein the multi-state electronic device cycles through at least three different states in response to said identical activations of the switch.

31. A flashlight according to claim 11, wherein for each transition from a previous state to a new state, based on an activation of the switch, the multi-state electronic device causes a different pattern of light sources to illuminate and to remain illuminated until a next state transition based on an activation of the switch.

32. A flashlight according to claim 11, wherein the switch is spring-loaded and a depression and release of the switch causes only a single state change in the multi-state electronic device.

33. A flashlight according to claim 11, wherein the switch is a temporary-activation switch and only a single transition edge of the signal provided by the switch causes a state change in the multi-state electronic device.

34. A flashlight according to claim 11, wherein the plural states begin at an initial state in which all of the light sources are off and then, after cycling through the

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fixed number of states, return to said initial state, whereupon the cycle may be repeated.